



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF THE
SCIENCE ADVISOR

NOV 17 2016

MEMORANDUM

SUBJECT: Adjudication of Allegations of a Loss of Scientific Integrity

FROM: Francesca T. Grifo, Ph.D.,
Scientific Integrity Official

TO:

(b) (6)

This memorandum is in response to your allegations of a loss of scientific integrity concerning several authorship disputes within your office in 2014 and 2015.

The EPA Scientific Integrity Policy, dated February 2012, provides principles and standards to ensure scientific integrity in the use, conduct, and communication of science. When this policy is not adhered to, or is circumvented, the robustness of EPA science and the trust in the results of our scientific work is at risk. Loss of scientific integrity is the result of a deliberate action by an employee that compromises the conduct, production, or use of scientific and scholarly activities and assessments. EPA does not tolerate loss of integrity in the performance of scientific and scholarly activities or in the communication, supervision, or utilization of science.

We consider three criteria when establishing a loss of scientific integrity:

- 1) There is a significant departure from accepted practices of the relevant scientific or scholarly community;
- 2) The actions causing the loss of integrity are committed intentionally, knowingly or recklessly; and,
- 3) The allegation is proven by a preponderance of the evidence.

A Scientific Integrity Review Panel ("Panel") comprised of three Deputy Scientific Integrity Officials was convened to review the relevant information in your case.

You alleged four instances of a loss of scientific or scholarly integrity related to your work in the (b) (6)

1. You alleged that your name and the names of other scientists were inappropriately excluded as authors of an article published in the journal, Environmental Science & Technology.
2. You alleged that you and other (b) (6) (b) (6) (within the (b) (6) and (b) (6) scientists were inappropriately excluded from the list of contributing authors of an abstract and poster presented at the 2014 (b) (6) 47th annual meeting.
3. You alleged that a colleague was prohibited from adding you and another (b) (6) scientist as authors of a presentation for a professional meeting as attribution for material that you and the other (b) (6) scientist contributed.
4. You alleged that an (b) (6) colleague was prohibited from adding you to the author list of an abstract and presentation at a professional meeting where you had made a substantial contribution.

Allegation #1

You alleged that you and other scientists in (b) (6) were inappropriately excluded from the author list of an article published in the journal, Environmental Science & Technology.

Analysis

The Scientific Integrity Program (SIP) conducted interviews and evaluated a large number of email messages. The SIP also compared the scientific findings reported in the published article to the scientific findings in a draft manuscript listing you (and other (b) (6) scientists) as authors, and to a Science Advisory Panel white paper.

The Scientific Integrity Program notes the following:

- The comparison of the published journal article, the manuscript draft, and Section 2 of the final white paper indicated that the three documents reported essentially the same scientific findings.
- The manuscript drafts listed authors that were not included in the published article.

Finding

The EPA Scientific Integrity Policy (see <https://www.epa.gov/risk/policy-epa-scientific-integrity>) and the international standards for authors (Wager, E. and Kleinert, S., (2011)) specify that authorship of research publications should accurately reflect individuals' contributions to the work and its reporting. This has been reinforced in EPA's recently published Best Practices for Designating Authorship (see <https://www.epa.gov/osa/authorship-best-practices>), which states that EPA employees have the responsibility to appropriately acknowledge the intellectual contributions of others. Five of the fifteen scientists who contributed to the work product finalized and submitted the manuscript, listing only themselves as authors. Thus, the author list does not accurately reflect the contributions of all individuals. Revising a manuscript and submitting it for publication does not by itself determine authorship.

The Scientific Integrity Review Panel concluded that you and other scientists in the (b) (6) program were inappropriately excluded from the author list of an article manuscript that was published in the journal, Environmental Science & Technology.

Recommendation

The Committee on Publication Ethics recommends that journal editors consider issuing a correction if "the author/contributor list is incorrect (i.e. a deserving author has been omitted or somebody who does not meet authorship criteria has been included)" (see http://publicationethics.org/files/retraction%20guidelines_0.pdf). The Scientific Integrity Review Panel recommends:

1. (b) (6) should do due diligence in investigating which individuals should be included as authors. The Panel recommends that (b) (6) hold a conference call or meeting with all current and prospective authors. The Panel has identified fifteen scientists who contributed to the work and should be included in that discussion. EPA's Scientific Integrity Official can be called upon to help to facilitate that discussion to help the participants find consensus on the appropriate author list. (b) (6) should then ensure that the corresponding author requests that the journal editor issue a correction to the author list of the article in a timely manner.
2. (b) (6) should formally adopt written authorship guidelines consistent with EPA's Best Practices for Designating Authorship and consistently apply them to all future work products where authorship is designated.

Allegation #2

You alleged that you and other scientists were inappropriately excluded from the list of contributing authors of an abstract and poster presented at the 2014 (b) (6) 47th annual meeting.

Analysis

The abstract and poster are entitled (b) (6). There is only one listed author.

A side-by-side comparison of the August 2014 manuscript draft (mentioned in Allegation #1) and the poster presentation reveals that both report essentially the same scientific findings. The abstract and poster report essentially the same scientific findings. The (b) (6) for the (b) (6) white paper and Environmental Science and Technology article.

Findings

The Scientific Integrity Policy and the international standards for authors specify that authorship of research publications should accurately reflect individuals' contributions to the work and its reporting. This has been reinforced in EPA's Best Practices for Designating Authorship, which states that EPA employees have the responsibility to appropriately acknowledge the intellectual contributions of others.

In cases where a single presenter is delivering the work of a large team or program, the larger group should be represented in final products based on their contribution and, when this is not possible: by use of the pronoun "we" and "the program" or "EPA" and not by use of the pronoun "I"; by listing them in an acknowledgment section; or by other means of signaling attribution.

The SIP evaluated the abstract, final poster, and several email messages that you provided. The abstract and poster listed the first author of the journal article described above as the sole author. The SIP found that the abstract and poster presented preliminary results of the same scientific findings described in Allegation #1 that were developed by the same scientists. The Scientific Integrity Review Panel concluded that you and several other scientists should have been listed as authors of the abstract and poster.

Recommendation

The Committee on Publication Ethics recommends that journal editors consider issuing a correction if the author/contributor list of a publication is incorrect. However, there are no analogous recommendations for correcting the author list of a past meeting abstract and/or presentation. The Scientific Integrity Review Panel finds that the allegation is substantiated and recommends that (b) (6) formally adopt written authorship guidelines that are consistent with EPA's Best Practices for Designating Authorship and consistently apply them to all future meeting abstracts and presentations where authorship is designated.

Allegation #3

Analysis

You alleged that one of your colleagues was prohibited by your supervisor from adding you and another scientist as authors of a presentation that the colleague was to deliver at the 2014 (b) (6) annual meeting. You provided a series of email messages to support this allegation.

Eight days before he was to deliver his presentation, the listed author added material based on you and your colleague's work. The abstract had already been submitted. In an attempt to correct the authorship designation, the listed author added your and your colleague's names as co-authors on the first slide of the presentation.

The (b) (6) website shows that the abstract in question was published only with the listed author's name as the sole author. The meeting program also lists only him as scheduled to deliver the presentation. This likely led to confusion between you and your supervisor when you requested approval to be listed as a co-author of the presentation.

Findings

EPA's Scientific Integrity Policy requires Agency employees to "appropriately characterize, convey, and acknowledge the intellectual contributions of others." Although the sole author was correct in providing attribution to you and the other scientists who helped to develop the material that the author added to the presentation, the listed author may not have been appropriately characterizing your intellectual contributions by presenting you as co-authors in the title slide of the presentation while the meeting abstract and program listed him as the sole author.

Management review of work products authored by EPA scientists is a customary practice. The listed author's decision to acknowledge you and the other scientists by referring to you as co-authors at the beginning of the presentation rather than as an acknowledgement at the end of the presentation may have created confusion about whether there were concerns regarding authorship or acknowledgement.

Under the circumstances, the approach that the listed author used to provide attribution for the material he was adding to his presentation eight days before he was to deliver it was unusual, resulting in confusion and misunderstanding with little time to resolve issues.

The SIP evaluated email messages, a draft presentation, and the final presentation. The SIP concluded that application of the term "authorship" under the circumstances was ambiguous and could have resulted in a misunderstanding between you and EPA management.

The Scientific Integrity Review Panel found the allegation to be unsubstantiated and, therefore, dismissed the allegation.

Allegation #4

You alleged that your office colleague was prohibited from adding you as an author on an abstract and presentation where you made a substantial contribution. The paper was to be delivered at the 2015 (b) (6) annual meeting. Your colleague attempted to correct the author list of a previously cleared (but not yet submitted) meeting abstract by adding your name. Email messages that you submitted suggest that your supervisor implicitly approved (or at least did not appear to object to) the addition of your name to the author list. However, your second-line supervisor abruptly disapproved without specifying a reason and with little or no information about the circumstances. Two days later, your second-line supervisor sent a meeting invitation to the abstract authors and their managers to discuss (b) (6) abstracts and meeting participation by (b) (6) staff." At the meeting, he retracted the previous approval provided to you, the author, and another colleague to attend the meeting, citing "judicious use of resources," and prohibited you or your two colleagues from reporting any EPA material at the meeting if you were to attend in a personal capacity.

Analysis and Findings

EPA's Scientific Integrity Policy expects all Agency employees to appropriately characterize, convey, and acknowledge the intellectual contributions of others. The second-line supervisor's opposition to acknowledging your contribution violates the policy.

EPA's Scientific Integrity Policy requires reviews by Agency managers to be based only on scientific quality considerations. The listed author was attempting to correct attribution of a previously cleared abstract - there was no change to its scientific content. The second-line supervisor provided no scientific basis for disapproving such a correction.

EPA's Scientific Integrity Policy encourages professional development through participation in professional associations. The Policy also expects the Agency's scientists and managers to adhere to the Standards of Ethical Conduct for Employees of the Executive Branch, 5 CFR Part 2635. Based on these facts, the scientific integrity program consulted with the Office of General Counsel/Ethics for advice about possible federal ethics implications of the second-line supervisor's withdrawal of his approval of your travel to the (b) (6) meeting and when that

supervisor prohibited the staff from reporting any EPA material at the meeting if they were to attend in a personal capacity.

OGC/Ethics stated that the second-line supervisor was also the Deputy Ethics Official (DEO) for the organization and was therefore responsible for providing ethics advice for his employees to follow. Based on the facts provided, the advice given by the DEO is somewhat confusing. To OGC/Ethics, it appears that you and your colleagues conducted your work on official time as part of assigned duties. Admittedly, management can decide that it cannot support using appropriated dollars to send employees on official travel to attend or present at a conference; however, that decision is a policy – not ethics – determination. If the employees then decided to participate in the conference and nonetheless present the paper, then they should have been advised to seek prior approval of the outside activity in accordance with the procedures set forth at 5 CFR 6401.103(a)(4). At that point, the ethics concern would be whether the employees, in using work prepared in official capacity and presenting it in their personal capacity, are using their public office for private gain. According to 5 CFR 2635.702, doing so could be viewed as a misuse of position.

Still, it may have been possible for the DEO to approve them for outside activity provided that certain ethical parameters were also met. For example, the employees could not be compensated, could not participate on official time, could not share any non-public information, could not ask EPA to pay for their travel, and could not include the EPA seal or logo. In addition, they could not be introduced or mentioned solely with reference to their EPA positions and titles, and would be required to include a clear disclaimer that the opinions expressed are their own and not necessarily those of the agency.

Conclusion

The Scientific Integrity Review Panel concluded that there was no legitimate basis for prohibiting the addition of your name to the author list.

Recommendations

The loss of scientific integrity occurred in large part because the (b) (6) did not have well-established clearance procedures. The EPA Scientific Integrity Policy states that each program office and regional office will develop and document procedures for review and approval of scientific communications. The Scientific Integrity Review Panel found that the allegation was substantiated and has recommended that (b) (6) formally adopt written clearance procedures that are consistent with EPA's Scientific Integrity Committee's upcoming best practices for clearance of scientific communications and consult OGC/Ethics as necessary in future similar circumstances.